

[Sequence Listing]

<110> Takeda Chemical Industries, Ltd.

<120> Body weight gain inhibitor

<130> P02-0149PCT

<150> JP2001-403260

<151> 2001-12-28

<150> JP2002-93096

<151> 2002-03-28

<160> 150

<210> 1

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 1

atcgattaca atgcaggccg ctgggcaccc ag 32

<210> 2

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 2

actagtcccc ttcaagcaccg caaatatgtcg cg 32

<210> 3

<211> 1023

<212> DNA

<213> Human

<400> 3

atcgattaca atgcaggccg ctgggcaccc agagccctt gacagcaggg gtccttttc 60
 cctcccccacg atgggtgcca acgtctcta ggacaatggc actggccaca atgccaccc 120
 ctccgaccca ctggcggtcc tctatgtgt cctggccgccc gtgtactccg ggatctgtgc 180
 tgggggtctg actggcaaca cggcggtcat ccttgtaatc ctaagggcgc ccaagatgaa 240
 gacgggtacc aacgttgtca tcctgaacct ggccgtcgcc gacgggctct tcacgttgt 300
 actggccgtc aacatcgccg agcacctgtc gcagttactgg cccttcgggg agctgtctg 360
 caagctgtcg ctggccgtcg accatacaa catcttcitcc agcatctact tcttagccgt 420
 gatgagcgtg gaccgatacc tgggtgtct ggccacccgtg aggtcccgcc acatgcccgt 480
 gccgaccciac cggggggcga aggtcgccag cctgtgtgc tggctggcg tcacggfcct 540
 ggtctgtccc ttcttcctt tcgttgtggctt ctacagcaac gagctgcagg tcccaagctg 600
 tggctgtggc ttcccggtgc ccgagcagg ctggttcaag gccagccgtg tctacacgtt 660
 ggtctgtggc ttctgtgtc cccgtgtcac catctgtgtc ctctacacag acttcctgcg 720
 caggctgtccg gccgtcgccg tccgctctgg agccaaggctt ctaggcaagg ccaggcggaa 780
 ggtgaccgtc ctggctctcg tcgtgtgtc cttgtgtccctt ctctgtgtgg cggcccttc 840
 cctggccctt gtctgtggcc tgaccacggc cttggccctt accccactgg tcatcgttat 900
 gtctctacgtc atcaccagcc tcagctacgc caactctgtgc ctgaacccct tcccttacgc 960
 ctttcttagat gacaacttcc ggaagaaccttcc ccgcagcata ttgcgggtct gaagggact 1020
 agt 1023

<210> 4

<211> 333

<212> PRT

<213> Human

<400> 4

Met Gln Ala Ala Gly His Pro Glu Pro Leu Asp Ser Arg Gly Ser Phe
 1 5 10 15
 Ser Leu Pro Thr Met Gly Ala Asn Val Ser Gln Asp Asn Gly Thr Gly
 20 25 30
 His Asn Ala Thr Phe Ser Glu Pro Leu Pro Phe Leu Tyr Val Leu Leu
 35 40 45
 Pro Ala Val Tyr Ser Gly Ile Cys Ala Val Gly Leu Thr Gly Asn Thr

50	55	60	
Ala Val Ile Leu Val Ile Leu Arg Ala Pro Lys Met Lys Thr Val Thr			
65	70	75	80
Asn Val Phe Ile Leu Asn Leu Ala Val Ala Asp Gly Leu Phe Thr Leu			
85	90	95	
Val Leu Pro Val Asn Ile Ala Glu His Leu Leu Gln Tyr Trp Pro Phe			
100	105	110	
Gly Glu Leu Leu Cys Lys Leu Val Leu Ala Val Asp His Tyr Asn Ile			
115	120	125	
Phe Ser Ser Ile Tyr Phe Leu Ala Val Met Ser Val Asp Arg Tyr Leu			
130	135	140	
Val Val Leu Ala Thr Val Arg Ser Arg His Met Pro Trp Arg Thr Tyr			
145	150	155	160
Arg Gly Ala Lys Val Ala Ser Leu Cys Val Trp Leu Gly Val Thr Val			
165	170	175	
Leu Val Leu Pro Phe Phe Ser Phe Ala Gly Val Tyr Ser Asn Glu Leu			
180	185	190	
Gln Val Pro Ser Cys Gly Leu Ser Phe Pro Trp Pro Glu Gln Val Trp			
195	200	205	
Phe Lys Ala Ser Arg Val Tyr Thr Leu Val Leu Gly Phe Val Leu Pro			
210	215	220	
Val Cys Thr Ile Cys Val Leu Tyr Thr Asp Leu Leu Arg Arg Leu Arg			
225	230	235	240
Ala Val Arg Leu Arg Ser Gly Ala Lys Ala Leu Gly Lys Ala Arg Arg			
245	250	255	
Lys Val Thr Val Leu Val Leu Val Val Leu Ala Val Cys Leu Leu Cys			
260	265	270	
Trp Thr Pro Phe His Leu Ala Ser Val Val Ala Leu Thr Thr Asp Leu			
275	280	285	
Pro Gln Thr Pro Leu Val Ile Ser Met Ser Tyr Val Ile Thr Ser Leu			
290	295	300	
Ser Tyr Ala Asn Ser Cys Leu Asn Pro Phe Leu Tyr Ala Phe Leu Asp			
305	310	315	320
Asp Asn Phe Arg Lys Asn Phe Arg Ser Ile Leu Arg Cys			
325	330		

<210> 5

<211> 687

<212> RNA

<213> Artificial Sequence

<220>

<223> Riboprobe

<400> 5

caaaagcugg agcuccacccg	cgguggcggc	cgcu cuuagcc	cacu agugcc	cuuc agcacc	60	
gcaauaugcu	gcgggaaguuc	uuccggaaagu	ugucaucuag	aaaggcguag	aggaaggggu	120
ucagggcacga	guuggcguag	cugaggcugg	ugaugacgua	egacauacug	augaccagug	180
gggucucgg	caggcccug	gucagggcca	cgacagaggc	caggugggaa	ggcguccagc	240
agaggaggcg	cacggccacg	acgacgaga	ccaggacggu	caccuuccgc	cuggccuugc	300
cuagagccuu	ggcucccagag	cggagccca	cgcccccgag	ccugcgcagg	aggucugugu	360
agagcacaca	gaugggugcac	acgggcagca	cgaagcccag	gaccaacgug	uagacacggc	420
uggccuugaa	ccagaccugc	ucgggccacg	ggaagcucag	cccacagcnu	gggaccugca	480
gcucguugc	guagacccca	gcaaaaagaga	agaaggcgag	aaccaggacc	gugacgcccc	540
gcacagacaca	caggcuggcg	accuuucgccc	ccccguagg	gcgccaggc	auguggcgcc	600
accucacggu	ggcccgacc	accageuauc	gguccacgcu	caucacggc	aggaaguaga	660
ugcuggagaa	gauguuguag	uggucga				687

<210> 6

<211> 17

<212> PRT

<213> Porcine

<400> 6

Trp Tyr Lys His Thr Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala			
1	5	10	15

Ala

<210> 7

<211> 438

<212> DNA

<213> Human

<220>

<221>

<222> 408

<223>

<400> 7

gccccatgag caggccagcg	gcccggccca	ccgtgtggta	gcggggactc	gccacgtgct	60
tgttaccacgc	gctggagggc	agcggcagca	ggagcagaag	cagcagcagt	120
gcccggctcg	ggggcccccc	cgctcccttg	ggccacacgc	cagggcgctc	180
ccggccggcg	ggccggggcca	cgaaccggct	cggctgggt	tggcgcgca	240
gacgcccagg	taccggagcg	caggaggctg	gagggcagcc	gtgggtcccc	300
gctataaccg	ctcggtgcc	ccgcctcggt	ccgccccctc	agtaccgctg	360
atggggggag	gacggaggaa	aggagaggga	accctggcag	ctggcgngg	420
ttgacaccc	cactgagt			acgtgggtac	
					438

<210> 8

<211> 264

<212> DNA

<213> Human

<400> 8

gatagggtga	gacgcgcagc	cccatgagca	ggccagcggc	gcggccacc	60
ggggactcgc	cacgtcttg	taccacgcgc	cggagggcag	cggcagcagg	120
gcacgcagtc	cagcccgccgc	cggctcgccc	gagcccccc	ctccctggg	180
ggccgtcgc	gtcgcacggcc	gcccggcggg	gcggccacg	aacccgctcg	240
ggccgcgt	ggagttggga	cggccaggta	cgggagccg	gtctgggttg	300
ggcccccctg	caggccacgc	tataaccgt	cggtggccccc	gcctcggtcc	360
taccgcgtgg	ctcccaagat	ggggggaggaa	acggaggagg	gagagggAAC	420
ggcg					
					424

<210> 9

<211> 424

<212> DNA

<213> Human

<400> 9

gatagggtga	gcgacgcagc	cccatgagca	ggccagcggc	gcggccacc	60
ggggactcgc	cacgtcttg	taccacgcgc	cggagggcag	cggcagcagg	120
gcacgcagtc	cagcccgccgc	cggctcgccc	gagcccccc	ctccctggg	180
ggccgtcgc	gtcgcacggcc	gcccggcggg	gcggccacg	aacccgctcg	240
ggccgcgt	ggagttggga	cggccaggta	cgggagccg	gtctgggttg	300
ggcccccctg	caggccacgc	tataaccgt	cggtggccccc	gcctcggtcc	360
taccgcgtgg	ctcccaagat	ggggggaggaa	acggaggagg	gagagggAAC	420
ggcg					
					424

<210> 10

<211> 375

<212> DNA

<213> Human

<400> 10

gcgcctcacc	gtgtggtagc	ggggactcgc	cacgtcttg	taccacgcgc	60
ggcacgagga	gcagaagcag	cacgtgtcc	agccggcc	ggctcgccgg	120
tccctgggc	gccacgcagg	gtcagacgt	cgacggccgc	ccggggggcc	180
gctcggctgg	gttggccgc	gcagttgggt	tggacgccc	aegtacccg	240
ctggaggcga	gccgtgggtc	ccctgcaggc	ccagctataa	ccgctcggt	300
gttccggcccc	ctcagtaccg	ctgggtctcc	cagaatgggg	gagggacgg	360
ggaaccttgg	cacgt				
					375

<210> 11

<211> 260

<212> DNA

<213> Human

<220>

<221>

<222> 2, 61, 147, 189, 213, 237, 249

<223>

<400> 11

cnacgttctc	ggggacataa	accctgttct	tgtcttaacc	cgccaaagggg	60
nacgcgcgt	cggtcgagca	gagaagtacg	gggcctggg	ccggggctcc	120
ccctgtctac	cgctactgt	gttctnctc	ttgtctacctc	tgcggccag	180
aagcacgtng	cgagccctcg	ctatcacaca	gtnggtcg	ccctgggct	240
ctgcggccnt	ctgtcctacct			gtctcatnggg	
					260

<210> 12

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 12
aactccactg cgcgccaaa ccca 24

<210> 13

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 13
tctcccacag ctcctgaacc cacg 24

<210> 14

<211> 375

<212> DNA

<213> Human

<400> 14

aactccactg cgcgccaaa cccagccgag ccgggttcgtg gcccccccg cccggcggcc 60
gtcgacgcga gcgcctggc gtggcgccca eeeeagcggg gggctccgc gagccggccg 120
cggctggcac tgctgctgtc tctgctccgt ctggccgtgc cctccggcgc gtggtaaag 180
cacgtggca gtcggcgcta ccacacggtg ggccgcgcg ctggcctgtc catggggctg 240
cgtcgcciac cttatctgtc ggcgcgcgcg ctgcgcgcgg ccgcgcggccc cctggccagg 300
gacaccctct ccccgaaacc cgccggccgc gaggctccctc tcctgctgcc ctcgtgggtt 360
caggagctgt gggag 375

<210> 15

<211> 125

<212> PRT

<213> Human

<400> 15

Asn Ser Thr Ala Arg Pro Asn Pro Ala Glu Pro Val Arg Gly Pro Pro
1 5 10 15
Arg Arg Ala Ala Val Asp Ala Ser Ala Leu Ala Trp Arg Pro Gly Glu
20 25 30
Arg Gly Ala Pro Ala Ser Arg Pro Arg Leu Ala Leu Leu Leu
35 40 45
Leu Leu Leu Pro Leu Pro Ser Gly Ala Trp Tyr Lys His Val Ala Ser
50 55 60
Pro Arg Tyr His Thr Val Gly Arg Ala Ala Gly Leu Leu Met Gly Leu
65 70 75 80
Arg Arg Ser Pro Tyr Leu Trp Arg Arg Ala Leu Arg Ala Ala Ala Gly
85 90 95
Pro Leu Ala Arg Asp Thr Leu Ser Pro Glu Pro Ala Ala Arg Glu Ala
100 105 110
Pro Leu Leu Pro Ser Trp Val Gin Glu Leu Trp Glu
115 120 125

<210> 16

<211> 23

<212> PRT

<213> Human

<400> 16

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu 20

<210> 17

<211> 30

<212> PRT

<213> Human

<400> 17

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu Trp 20 25 30

<210> 18

<211> 69
<212> DNA
<213> Human

<400> 18
tggtaacaagg acgtggcgag tccccgctac cacacggtgg gcccgcgcgc tggcctgctc 60
atggggctg 69

<210> 19
<211> 90
<212> DNA
<213> Human

<400> 19
tggtaacaagg acgtggcgag tccccgctac cacacggtgg gcccgcgcgc tggcctgctc 60
atggggctgc gtcgctacc ctatctgtgg 90

<210> 20
<211> 29
<212> PRT
<213> Human

<400> 20
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu
20 25

<210> 21
<211> 28
<212> PRT
<213> Human

<400> 21
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr
20 25

<210> 22
<211> 27
<212> PRT
<213> Human

<400> 22
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro
20 25

<210> 23
<211> 26
<212> PRT
<213> Human

<400> 23
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu Arg Arg Ser
20 25

<210> 24
<211> 25
<212> PRT
<213> Human

<400> 24
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu Arg Arg
20 25

<210> 25
<211> 24
<212> PRT
<213> Human

<400> 25
 Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
 1 5 10 15
 Ala Gly Leu Leu Met Gly Leu Arg
 20

<210> 26
 <211> 87
 <212> DNA
 <213> Human

<400> 26
 tggtaacaagc acgtggcgag tcccccgtac cacacggtgg gcccgcgcgc tggcctgctc 60
 atggggctgc gtcgctacc ctatcg 87

<210> 27
 <211> 84
 <212> DNA
 <213> Human

<400> 27
 tggtaacaagc acgtggcgag tcccccgtac cacacggtgg gcccgcgcgc tggcctgctc 60
 atggggctgc gtcgctacc ctat 84

<210> 28
 <211> 81
 <212> DNA
 <213> Human

<400> 28
 tggtaacaagc acgtggcgag tcccccgtac cacacggtgg gcccgcgcgc tggcctgctc 60
 atggggctgc gtcgctacc c 81

<210> 29
 <211> 78
 <212> DNA
 <213> Human

<400> 29
 tggtaacaagc acgtggcgag tcccccgtac cacacggtgg gcccgcgcgc tggcctgctc 60
 atggggctgc gtcgctca 78

<210> 30
 <211> 75
 <212> DNA
 <213> Human

<400> 30
 tggtaacaagc acgtggcgag tcccccgtac cacacggtgg gcccgcgcgc tggcctgctc 60
 atggggctgc gtcgc 75

<210> 31
 <211> 72
 <212> DNA
 <213> Human

<400> 31
 tggtaacaagc acgtggcgag tcccccgtac cacacggtgg gcccgcgcgc tggcctgctc 60
 atggggctgc gt 72

<210> 32
 <211> 999
 <212> DNA
 <213> Human

<400> 32
 atgcaggccg ctgggacacc agagcccctt gacagcaggg gctccttc cctccccacg 60
 atgggtggca acgtcttca ggacaatggc actggcaca atgcacccctt ctccgagcca 120
 ctggcggtcc tctatgtgct cctggccggc gtgtactccg ggatctgtgc tggtggctg 180
 actggcaaca cggccgtcat ccttgtaaatc ctaagggcgc ccaagatgaa gacggtgacc 240
 aacgtgttca tcctgaacct ggccgtcgcc gacgggtct tcacgtgtt actgcccgtc 300
 aacatcgccg agcacctgt gcagactgg cccttgggg agctgtctg caagctgg 360
 ctggccgtcg accactacaa catcttctcc agcatctact tcctagccgt gatgagcgtg 420
 gaccgatacc tggtggtct ggccacccgtg aggtcccgcc acatccccig ggcacactac 480
 cggggggcga aggtcgccag cctgtgtgtc tggctggcgc tcacggtctt ggttctggccc 540

ttcttctctt	tcgctggcgt	ctacagcaac	gagctgcagg	tcccaagctg	tgggctgagc	600
ttcccggtgc	ccgagcgggt	ctgggtcaag	gccagccgtg	tctacacttt	ggtccctgggc	660
ttcgtgtgc	ccgtgtcac	cacgtgttg	ctctacacag	acctcctgcg	caggctgcgg	720
gccgtgcggc	tcgcgtctgg	agccaaggct	ctaggcaagg	ccaggcggaa	ggtagaccgtc	780
ctggcttcg	tgtgtctgg	cggtgtccctc	cctgtctggta	cgccttcca	cctggccct	840
gtcggtggccc	tgaccacgga	cctgccccag	accccactgg	tcatcagtat	gtcttacgtc	900
atcacccagcc	tcacgtacgc	caactcgtgc	ctgaaccct	tccttctacgc	ctttcttagat	960
gacaacttcc	ggaagaactt	ccgcagcata	ttgcgggtgc			999

<210> 33
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 33
tctcccacag ctcctgaacc cacg 24

<210> 34
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 34
acagataggg tgagcgacgc agcc 24

<210> 35
<211> 1102
<212> DNA
<213> Human

<400> 35	ggcatttaag	tggagtcttg	aaggatgagt	agggtttagg	cacagacgca	cagaggcagg	60
	caaagccaca	ggctgttgtt	ttaggcaaaa	attgagactg	gctggataaa	gttgtcttgg	120
	gggacatca	ccagagaggtt	ggcgcgtggag	gtctgcaagg	ccttgtcccg	cccctccagg	180
	ggtagagggtt	ccaggaggggg	ctgactttt	ctccttggaa	cctcacagaa	ctgcagaccc	240
	cacggatggc	tttgttgtgc	caacatgagg	cttctaaggc	ttctgccccgg	agatgggttg	300
	gtggggagaa	gtctgggggtt	gcagtggaca	ggacaggggt	tgggacacgc	tttgggagct	360
	atgttagggc	aggacaaggg	acaactttt	gggggacta	cccaaggggg	tcttgaatgg	420
	tgctgagggc	ccccggacggc	cctccctgcaa	tagccactgt	agctctgcct	gcacccgggc	480
	cittggctctg	ctgtgtctcc	accggcggaa	gtctgcttaa	aggggcatcc	ctcagcccta	540
	ctccctcatc	agtgttccca	gtaccctact	cctggactt	ccactccttag	aggggaggagg	600
	ctigacggc	agagaatggg	acgtgtcccc	tcagageagc	ctcgagccca	gttccagcca	660
	gcgcggccact	cagtgggtt	ctcaagtacc	cacgtcccc	gccagctgcc	agggttccct	720
	ctccctccctc	cgtccctcc	cccatctggg	gagcccgacgc	gtactgggg	ggcggaaacga	780
	ggcgccggca	ccgagcggtt	atagctgggc	ctgcagggga	cccaaggctc	gcctccagcc	840
	tcctgcgtc	cggtacctgg	gcgtcccaac	tccactgcgc	gccccaaaccc	agccgagccg	900
	gttcgtggcc	ccccccggc	ggccggccgtc	gacgcgagcg	ccctggcggt	gccccccagg	960
	gaggcgccgg	ctcccgcgag	ccggccgggg	ctggcactgc	tgcgtcttct	gctccctgcgt	1020
	ccgcgtccct	ccggcggtt	gtacaaggac	gtggcgagtc	cccgctacca	cacgggtgggc	1080
	cgccggccgt	gcctgtcat	gg				1102

<210> 36
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 36
aactccactg cgccccaaa ccca 24

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 37
ctggcactgc tgctgcttct gctc 24

<210> 38
<211> 609
<212> DNA
<213> Human

<400> 38
ctgtgcgcg tgccctccgg cgcggtggac aagcacgtgg cgagtccccg ctaccacacg 60
gtggccgcg cggctggct gtcatgggg ctgcgtcgct acccttatct gtggccccc 120
gcgcgtgcgg cggccggccgg gccccgtggc agggacaccc tctccccca acccgagcc 180
cgcgaggctc ctctccgtct gcccgtggc gttcaggagc tgtggagac gcgcacgcagg 240
agctcccagg caggatccc ctgcgtcgct cccggagcc cgccgcggcc agagccgtcg 300
ctgaacccgg agtccctggc ctgcagcggc gctggccaga gacttcggag agacgtctcc 360
cgcccgacgg tggacccgcg agcaaaccgc cttggctgc cttgcctggc cccggacgg 420
tttcgtacgcg gtccccccgcg cggccgtggc gcctccgcgc ctgacccagg aggagtggcc 480
gcgcgttcagg aggagccgc catagacccc gcctgcgtc cggtaataaa aatccgcctg 540
actccgtgcgcccccatgc gtaaaaaaaaaaaaaaaa aaaaaaaaaaaa agcggccgtc 600
gaattcttag

<210> 39
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 39
agcggtactg agggggcgga acga 24

<210> 40
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 40
gggtctatga gcggctccctg gaag 24

<210> 41
<211> 719
<212> DNA
<213> Human

<400> 41
ggcgggcca ccgagcggtt atagctgggc ctgcagggga cccacggctc gcctccagcc 60
tcctgcgcgc cggtaacctgg gcgtccaaac tccactgcgc gcccaaaccg agccgagccg 120
gttcgtggcc cggccggccgg ggccgcgtc gacgcgagcg ccctggcggt gcgcggcagg 180
gagcgggggg ctcccgcgag cggccgcgg ctggactgc tgctgtct gcctctgtc 240
ccctgcgcct cggcgccgtc gtacaaggac gtggcgagtc cccgttacca cacgggtggc 300
cgccgcgcgt gcctgtcat ggggactgcg ctgcgttccat atcgtggcg cccgcgcgtc 360
cgccgcgcgg cggggccctt ggccaggagc accctctccc cccaaaccgc agccgcggag 420
gtctcttc tcgtgccttc gtgggttccat gagctgiggg agacgcgacg caggagctcc 480
caggcaggga tccccgtccg tgcccccgg agccgcggc cccagagcc tgctgtggaa 540
ccggagtccc tggacttccat cggagctgcg cagagacttc ggagagacgt ctcccgccca 600
cggttgacc ccgcagaaaa ccgccttggc ctgcctgtc tggcccccgg accgttctga 660
cagcgtcccc cggccggcccg tggcccttcc gcgcgttacc caggaggagt gcgcgcgc 719

<210> 42
<211> 165
<212> PRT
<213> Human

<400> 42
Leu Ala Trp Arg Pro Gly Glu Arg Gly Ala Pro Ala Ser Arg Pro Arg
1 5 10 15
Leu Ala Leu Leu Leu Leu Leu Pro Leu Pro Ser Gly Ala
20 25 30
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
35 40 45
Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu Trp Arg Arg
50 55 60

Ala Leu Arg Ala Ala Ala Gly Pro Leu Ala Arg Asp Thr Leu Ser Pro
65 70 75 80
Glu Pro Ala Ala Arg Glu Ala Pro Leu Leu Pro Ser Trp Val Gln
85 90 95
Glu Leu Trp Glu Thr Arg Arg Ser Ser Gln Ala Gly Ile Pro Val
100 105 110
Arg Ala Pro Arg Ser Pro Arg Ala Pro Glu Pro Ala Leu Glu Pro Glu
115 120 125
Ser Leu Asp Phe Ser Gly Ala Gly Gln Arg Leu Arg Arg Asp Val Ser
130 135 140
Arg Pro Ala Val Asp Pro Ala Ala Asn Arg Leu Gly Leu Pro Cys Leu
145 150 155 160
Ala Pro Gly Pro Phe
165

<210> 43

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 43

acagataggg tgagcgacgc agcc 24

<210> 44

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 44

tgagcgacgc agccccatga gcag 24

<210> 45

<211> 235

<212> DNA

<213> Porcine

<400> 45

cgcacccct gccccccagac cctccggagc cagttccctgg tcccccgc cgggagccgt 60
cagcatgaaac ccccccggcac cgccatggg agcgccgggc ccgggaccgg ggcccaactgc 120
gaggccggcgg ctgctggcat tgctgttaact gctgttgtg ctgcccgtgc ccggccgtgc 180
cttgtacaag cacacggcga gtccccccta ccacacgggtg gggccggccg cgggc 235

<210> 46

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 46

cagcggcagc agcagcagca gtaa 24

<210> 47

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 47

cagcagtaac agcaatgccca gcag 24

<210> 48

<211> 156

<212> DNA

<213> Porcine

<400> 48

ctgtagcctc ccgcgctgcg gcttcccgc accccgcgc ccagaccctc cgagccagt 60
tcctggtccg cccgcgcgg agccgtcgc atgaacccc gggcacgcgg catggagcg 120
cggggccgg gaccggggc cactgcgagg cgccgg 156

<210> 49
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 49
cgctgctgg cattgctgtt actg 24

<210> 50
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 50
cgcccggtgcc tggtacaagg aca 23

<210> 51
<211> 588
<212> DNA
<213> Porcine

<400> 51
cggcgagttcc ccgttaccac acggggggcc gcgcggcgcc cctgtctatg gggctgccc 60
gcttcggccata catgtggcgc cgcgcgtgc gcggggcgcc cggggccctg gcgtgggaca 120
cttcggcca ggacgtggcc cctcgggggac cttccggccag gaacgcctc tcgtggggc 180
ccggccctcg cgacgtccg ctgtttcccc cgggggttca gacactgtgg cagggtgcac 240
gcggaaagtt ccgttccggg atccgggtca gtgcggcccg cagccgcgc gcgggggggt 300
ccgagccgca accggaattt ggcgcctt cctggacactc ggcggagtag accagagct 360
tcggagagtt ttcatgttcg cggtgtgttcg cgcaggaaac gcgccttcgcg aggccccc 420
tcggcccgccg gtcagagccg acctgtatgcg gcggccggcg gcggggcccc gcgcctggcc 480
ccggcgaggat ctcttcgcgc ccccaaggccg gcgttctgtt caataaaaacc gcgcctgttc 540
ctgcggaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa 588

<210> 52
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 52
ttcccgacac ccctgcgccc agac 24

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 53
ggctggcga aggccgttcc ctgc 24

<210> 54
<211> 565
<212> DNA
<213> Porcine

<400> 54
cctccggagc cagttcctgg tccggccgc cgggagccgt cagcatgaac cccggggcac 60
gcggcatggg agcgcggggc cggggacgg gggccactgc gaggcgccgg ctgtggcat 120
tgctgttact gctgtgtc cttggcgtc cccggcggtc ctgttacaag cacacggcga 180
gtcccccgtta ccacacggta ggccgcgcgg cgggcgtct catggggctg cggcgctcgc 240
cctacatgtg ggcggcgcc cttggccgg cttggccggc gacactttcg 300

gccaggacgt gccccctcg ggaccctccg ccaggaacgc cctctctccg gggcccgc
ctcgcacgc tccgctgctt ccccccgggg ttcaagact gtggcagggtg cgacgcggaa 360
gcttcggctc cgggatcccg gtcagtgcgc cccgcagccc gcgcgcggg ggetccgagc 420
cgcaaccgga attggggcgc tttccctgga cctcggcgggtagaccaga gccttcggag 480
agtcttcagc tcagcggtg 540
565

<210> 55
<211> 159
<212> PRT
<213> Porcine

<400> 55
Met Asn Pro Arg Ala Arg Gly Met Gly Ala Arg Gly Pro Gly
1 5 10 15
Ala Thr Ala Arg Arg Leu Leu Ala Leu Leu Leu Leu Leu
20 25 30
Leu Pro Leu Pro Ala Arg Ala Trp Tyr Lys His Thr Ala Ser Pro Arg
35 40 45
Tyr His Thr Val Gly Arg Ala Ala Gly Leu Leu Met Gly Leu Arg Arg
50 55 60
Ser Pro Tyr Met Trp Arg Arg Ala Leu Arg Pro Ala Ala Gly Pro Leu
65 70 75 80
Ala Trp Asp Thr Phe Gly Gln Asp Val Pro Pro Arg Gly Pro Ser Ala
85 90 95
Arg Asn Ala Leu Ser Pro Gly Pro Ala Pro Arg Asp Ala Pro Leu Leu
100 105 110
Pro Pro Gly Val Gln Thr Leu Trp Gln Val Arg Arg Gly Ser Phe Arg
115 120 125
Ser Gly Ile Pro Val Ser Ala Pro Arg Ser Pro Arg Ala Arg Gly Ser
130 135 140
Glu Pro Gln Pro Glu Leu Gly Ala Ser Ser Trp Thr Ser Ala Glu
145 150 155

<210> 56
<211> 23
<212> PRT
<213> Porcine

<400> 56
Trp Tyr Lys His Thr Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu 20

<210> 57
<211> 30
<212> PRT
<213> Porcine

<400> 57
Trp Tyr Lys His Thr Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Met Trp 20 25 30

<210> 58
<211> 69
<212> DNA
<213> Porcine

<400> 58
tgttacaagg acacggcgag tccccgtac cacacgggttgg gcccgcgcgc gggcctgctc 60
atggggctgt 69

<210> 59
<211> 90
<212> DNA
<213> Porcine

<400> 59
tgttacaagg acacggcgag tccccgtac cacacgggtgg gcccgcgcgc gggcctgctc 60
atggggctgtc gcccgtcgcc ctacatgtgg 90

<210> 60
<211> 23
<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 60

cgttctcggg gacataaaacc ctg 23

<210> 61

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 61

atgagcagcc cggaggcacg acc 23

<210> 62

<211> 188

<212> DNA

<213> Rat

<400> 62

ttcttgtcct aaccgccaa ggggccatgg acttgagcgc gctggcgtcg agcagagaag 60

tacggggccc tggcccccgg gctccggta accggccccct gctaccgccta ctgcgttgc 120

tgcitctgtct acctctgccc gccagcgctt ggtacaagca cgtggcgagc cctcgctatc 180

acacagtgc 188

<210> 63

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 63

atgagcagcc cggaggcacg acc 23

<210> 64

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 64

actgtgtat agcgaggcgt cgc 23

<210> 65

<211> 615

<212> DNA

<213> Rat

<400> 65

ctcagagctg tactaggcg gaagagggac ggccctcagg gaaggggtggc cctatgctta 60

aaacctttcct gtctcccttc cataagtgtt ccacttttag caactcctac caagggggca 120

tccttttgcct cctggcagcc catccctgtt ttctgagacc atgcattgtt ccagaactcc 180

ctccctgaca gttccctfccc tggggcgag gaaagggtaa gcaaggagat ccccccactaa 240

agcttcaagc gcagtcggcgt ttgcgtatca ctcatggga ggcttcttagc taccgggttt 300

cccttcttcct cctcccttc catacccttc tcccttgggc atgtgcgcgc ggggcgagcc 360

ggggcggggc cattgagaag ctgttagtgc accaactgac tagtcttcc tcattctccgg 420

agctccgacg ttctcgaaaa cataaaacctt gttcttgc taaccgcga aggggccatg 480

gacttggcg cgctggcgcc gagcagagaa gtacggggcc ctggggccgg ggctccggtg 540

aaccggccccc tgctaccgctt actgtgtatcc tacctctgc cccagcgcc 600

tggtacaagc acgtg 615

<210> 66

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 66
cgtttcggg gacataaacc ctg 23

<210> 67

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 67
cgagccctcg ctatcacaca gtgg 24

<210> 68

<211> 497

<212> DNA

<213> Rat

<400> 68

gtcgtgcctc	cgggctgctc	atggggctgc	gccgctcgcc	ctacctgtgg	cggcgtgcct	60
tgggtggggc	cgctggaccg	ctcggtgggc	tcccgggaca	gatggcccccgc	agcgtctcc	120
tgcgtccctc	ccccggggcag	gagctgtggg	aggtacgaa	caggagtta	ccggcaggac	180
ttcccggtca	tgcaacccgg	agtcgtcggg	accctggaggg	agccggccaa	cctgagcagt	240
cgctaaggctt	tcagttctgg	acttcagcag	agcccgcttc	tagagccctc	ggtagagacgc	300
ttcgtgccttca	gccatggttc	ctgcagcaaa	tcatcttgc	cgatctgtc	aggctcgacg	360
accgtctcaa	gaaccgatgg	cgccccgtg	tttgacttaa	gcaggagcac	agcttgttagc	420
tccagtctagg	tctcggttgc	tggtaataaa	aatcactctg	attccaaaaa	aaaaaaaaaa	480
aaaaaaaaaa	aaaaaaaaaa					497

<210> 69

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 69

ggggcggggc cattgagaag c 21

<210> 70

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 70

tgaccagaca acgagacctg a 21

<210> 71

<211> 684

<212> DNA

<213> Rat

<400> 71

tgtatcgca	ccaactgact	agtctttcc	atcctccgga	gctccgacgt	tctcggggac	60
ataaacccctg	ttcttgcct	aacccgccaa	ggggccatgg	acttgagcgc	gctggcgtc	120
agcagagaag	tacggggccc	tgggccccgg	gctccgtga	accggccctc	gctaccgcta	180
ctgtcgcttc	tgctcttgtc	acctctgccc	gccagccgc	ggtacaagca	cgtggcgagc	240
cctcgctata	acacagtgg	tcgtgcctt	gggctgtca	tggggctgc	ccgctcgccc	300
tacccgtggc	gggtggggcc	gctggaccgc	tcgtggggct	cccgccgacag	360	
atggcccgca	ccgtcttcc	gcttccccc	ccggccgagg	agctgtggga	ggtagacgac	420
aggagttcac	ccgcaggact	tcccgtgcat	gcaaccggaa	gtctcgggga	cctggagggaa	480
gccggccaaac	ctgagcagtc	gctaaggctt	cagtcctggaa	tttcagcaga	gcccgtgtct	540
agagcccttcg	gtgagacgt	tcgtgcccag	ccatggttcc	tgcaagcaat	catctttgcc	600
gatccgtgtca	ggctcgacga	ccgtctcaag	aaccgatggc	gccccgtgc	ttgacctaag	660
caggagcaca	gtttagtgc	ccag				684

<210> 72

<211> 185

<212> PRT

<213> Rat

<400> 72
Met Asp Leu Ser Ala Leu Ala Ser Ser Arg Glu Val Arg Gly Pro Gly
1 5 10 15
Pro Gly Ala Pro Val Asn Arg Pro Leu Leu Pro Leu Leu Leu Leu
20 25 30
Leu Leu Leu Pro Leu Pro Ala Ser Ala Trp Tyr Lys His Val Ala Ser
35 40 45
Pro Arg Tyr His Thr Val Gly Arg Ala Ser Gly Leu Leu Met Gly Leu
50 55 60
Arg Arg Ser Pro Tyr Leu Trp Arg Arg Ala Leu Gly Gly Ala Ala Gly
65 70 75 80
Pro Leu Val Gly Leu Pro Gly Gln Met Ala Arg Ser Ala Leu Leu
85 90 95
Pro Ser Pro Gly Gln Glu Leu Trp Glu Val Arg Ser Arg Ser Ser Pro
100 105 110
Ala Gly Leu Pro Val His Ala Thr Arg Ser Leu Arg Asp Leu Glu Gly
115 120 125
Ala Gly Gln Pro Glu Gln Ser Leu Ser Phe Gln Ser Trp Thr Ser Ala
130 135 140
Glu Pro Ala Ala Arg Ala Phe Gly Glu Thr Leu Arg Ala Gln Pro Trp
145 150 155 160
Phe Leu Gln Gln Ile Ile Phe Ala Asp Pro Val Arg Leu Asp Asp Arg
165 170 175
Leu Lys Asn Arg Trp Arg Pro Arg Ala
180 185

<210> 73

<211> 23
<212> PRT
<213> Rat

<400> 73
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15

Ser Gly Leu Leu Met Gly Leu
20

<210> 74

<211> 30
<212> PRT
<213> Rat

<400> 74
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15

Ser Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu Trp
20 25 30

<210> 75

<211> 69
<212> DNA
<213> Rat

<400> 75

tggtacaaggc acgtggcgag ccctcgctat cacacagtgg gtcgtgcctc cgggctgctc 60
atggggcttg 69

<210> 76

<211> 90
<212> DNA
<213> Rat

<400> 76

tggtacaaggc acgtggcgag ccctcgctat cacacagtgg gtcgtgcctc cgggctgctc 60
atggggctgc gcccgtcgcc ctacctgtgg 90

<210> 77

<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe

<400> 77

ttcatcctca acctggccat cgc 23

<210> 78

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 78

accaggattct tgccttaacc ctcc 24

<210> 79

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 79

cctgcttcgt acctccccaca gctc 24

<210> 80

<211> 311

<212> DNA

<213> Mouse

<400> 80

aaggggcaat tgacgtgagc ggcgtggcgt ctaacagaga agtacggggc cctggggcccg 60

ggactcccgaa accggccc ctgtgtcccc tgctgtgtct tctgtcttttgc ctaccgtgc 120

ccggcagcgc ctggataaag cacgtggcga gtccccccta tcacacagtgg tcgtgtgc 180

ccgggctgtct catggggctgc cgccgcgtcgc cctaccatgt gcgcgggtgcc ctggggcg 240

ctgtgtggacc cctctcccg ctcccaaggac cggtcggcccg cggcgctctc ctgtttccctt 300

cctcaggcga g 311

<210> 81

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 81

catgagcagc ccggaggcac gacc 24

<210> 82

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 82

gtgatagcgg ggactcgcca cgtg 24

<210> 83

<211> 237

<212> DNA

<213> Mouse

<400> 83

aaaggctgtatgcgaccaa ctgactggtc tccatcttct ggagctccga cgtgtcggtt 60

ctcgagaca taaacccagt tcttgtccca accctccaag gggcaatttgatgcgtgagcg 120

ctggcgctcta acagagaagt acggggccct gggccggga ctcccaaggaa cccggcccttg 180

ctgccccctgc tgctgtgtatgc cccgtggcccg ccagcgccctg gtataag 237

<210> 84

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 84
accaggatct tgtcctaacc ctcc 24

<210> 85

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 85
gggcaattga cgtgagcgcg ctgg 24

<210> 86

<211> 598

<212> DNA

<213> Mouse

<400> 86

cgtcttaacag agaagtacgg ggccctgggc ccgggactcc caggaaccgg cccctgtgc 60
ccctgtctgc gtttctgtc ttgttacccgc tgcccggcag cgcctggtat aagcacgtgg 120
cgaggtcccg ctatcacaca gtgggtcgtg cctccgggtc gtcatgggg ctgcgcgcct 180
cgcccttacca gtggcgcgt gcccgggtc gggctgtgg acccctctcc cggctccccag 240
gaccgggtgc cggcggcgt ctccgtctc ctccctcagg gcaggagctg tggaggtac 300
gaagcaggag ctcacctgca gggcttcccg tccatgcacc ctggatctcg cgggaccctgg 360
agggagtcgg ccaaccggag cagtcgttaa gccttcaactc ctggatctca gaggagcccg 420
ctgttagatgc tttcggagag acgcttcgtg cccagccatc gttctgtcag caagtcatct 480
ttggcgatcc tgtcaggccc aagaaccgtt ggcgcggcca tgcttgacct aggcaggagc 540
acagcttigaa gtcctcgtgtt tcgttgcgtt aaaaaccaac ctgatattcc 598

<210> 87

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 87

aaaggctgtt gtcgcaccaa c 21

<210> 88

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 88

accagaaaaca cgaggcctgtt c 21

<210> 89

<211> 659

<212> DNA

<213> Mouse

<400> 89

tgactggctt ccattctctg gagctccgac gtgctcggt tcggagacat aaaccctgtt 60
cttgccttaa ccctccaagg ggcaatttac gtgagccgcg tggctctaa cagagaagta 120
cgggccctgtt ggccggggac tccctggggac cggccctgtc tgccctgtc gtcgtttctg 180
cttttgttgc ctgtggccgc cagccgtttgg tataaggacgc tggcgatgtcc ccgttatcac 240
acagtgggtc ttggcttccgg gtcgttcatg ggcttgcgcg ctccctttaa ccagtggcgc 300
cggtccctgtt ggccgggtgc tggacccctc tccctggctcc caggaccgtt cggccggc 360
gtcttctgtc ttcccttccctc agggcaggag ctgtggggagg tacgaaggacg gagctcacct 420
gcaggggcttc cccgtccatgc accctggaggat ccgcggggacc tggaggggaggat ccgcacaaccg 480
gaggcgttgc taaggccatca ctccctggatc tcagaggacgc ccgttgcgttag agccttgcgg 540
gagacgttgc ttggccctgtt atggcttccctg cagcaaggatca tcttgcggta tccctgtcagg 600
cccaagaacc gatggccgc ccatgttgc cctaggcagg agcacagctt gaagctcca 659

<210> 90

<211> 176

<212> PRT

<213> Mouse

<400> 90
Leu Ala Ser Asn Arg Glu Val Arg Gly Pro Gly Pro Gly Thr Pro Arg
1 5 10 15
Asn Arg Pro Leu Leu Pro Leu Leu Leu Leu Leu Leu Pro Leu
20 25 30
Pro Ala Ser Ala Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr
35 40 45
Val Gly Arg Ala Ser Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr
50 55 60
Gln Trp Arg Arg Ala Leu Gly Gly Ala Ala Gly Pro Leu Ser Arg Leu
65 70 75 80
Pro Gly Pro Val Ala Arg Gly Ala Leu Leu Pro Ser Ser Gly Gln
85 90 95
Glu Leu Trp Glu Val Arg Ser Arg Ser Pro Ala Gly Leu Pro Val
100 105 110
His Ala Pro Trp Ser Pro Arg Asp Leu Glu Gly Val Arg Gln Pro Glu
115 120 125
Gln Ser Leu Ser Leu His Ser Trp Ile Ser Glu Glu Pro Ala Ala Arg
130 135 140
Ala Phe Gly Glu Thr Leu Arg Ala Gln Pro Trp Phe Leu Gln Gln Val
145 150 155 160
Ile Phe Ala Asp Pro Val Arg Pro Lys Asn Arg Trp Arg Pro His Ala
165 170 175

<210> 91

<211> 23

<212> PRT

<213> Mouse

<400> 91
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ser Gly Leu Leu Met Gly Leu
20

<210> 92

<211> 30

<212> PRT

<213> Mouse

<400> 92

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ser Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Gln Trp
20 25 30

<210> 93

<211> 69

<212> DNA

<213> Mouse

<400> 93

tgtataagc acgtggcgag tcccgctat cacacagtgg gtcgtgcctc cgggctgctc 60
atggggctg 69

<210> 94

<211> 90

<212> DNA

<213> Mouse

<400> 94

tgtataagc acgtggcgag tcccgctat cacacagtgg gtcgtgcctc cgggctgctc 60
atggggctgc 90
gccgctcgcc ctaccagtgg

<210> 95

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<221>

<222> 21

<223> Xaa on the 21st position means Met (0)

<400> 95
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Xaa Gly Leu
20

<210> 96
<211> 22
<212> PRT
<213> Human

<400> 96
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly
20

<210> 97
<211> 21
<212> PRT
<213> Human

<400> 97
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met
20

<210> 98
<211> 20
<212> PRT
<213> Human

<400> 98
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu
20

<210> 99
<211> 19
<212> PRT
<213> Human

<400> 99
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu

<210> 100
<211> 18
<212> PRT
<213> Human

<400> 100
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly

<210> 101
<211> 17
<212> PRT
<213> Human

<400> 101
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala

<210> 102
<211> 16
<212> PRT
<213> Human

<400> 102
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala

1 5 10 15

<210> 103
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221>
<222> 21
<223> Xaa on the 21st position means Met (0)

<400> 103
Trp Tyr Lys His Thr Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Xaa Gly Leu
20

<210> 104
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221>
<222> 21
<223> Xaa on the 21st position means Met (0)

<400> 104
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ser Gly Leu Leu Xaa Gly Leu
20

<210> 105
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221>
<222> 1
<223> Xaa on the 1st position means Fmoc Trp

<400> 105
Xaa Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu
20

<210> 106
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221>
<222> 1
<223> Xaa on the 1st position means Ac Trp

<400> 106
Xaa Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu
20

<210> 107
<211> 22
<212> PRT
<213> Human

<400> 107
Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala Ala
1 5 10 15
Gly Leu Leu Met Gly Leu
20

<210> 108
<211> 20
<212> PRT
<213> Human

<400> 108
His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala Ala Gly Leu
1 5 10 15
Leu Met Gly Leu
20

<210> 109
<211> 15
<212> PRT
<213> Human

<400> 109
Arg Tyr His Thr Val Gly Arg Ala Ala Gly Leu Leu Met Gly Leu
1 5 10 15

<210> 110
<211> 9
<212> PRT
<213> Human

<400> 110
Arg Ala Ala Gly Leu Leu Met Gly Leu
1 5

<210> 111
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<221>
<222> 1
<223> Xaa on the 1st position means Ac Tyr

<400> 111
Xaa Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala Ala
1 5 10 15
Gly Leu Leu Met Gly Leu
20

<210> 112
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221>
<222> 1
<223> Xaa on the 1st position means DTrp

<400> 112
Xaa Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu Met Gly Leu
20

<210> 113
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<221>
<222> 1
<223> Xaa on the 1st position means 3-Indolepropanoyl Tyr

<400> 113
Xaa Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala Ala
1 5 10 15
Gly Leu Leu Met Gly Leu

<210> 114
 <211> 66
 <212> DNA
 <213> Human

<400> 114
 tggtaacaagc acgtggcgag tccccgctac cacacggtagg gcccgcggc tggcctgctc 60
 atgggg 66

<210> 115
 <211> 63
 <212> DNA
 <213> Human

<400> 115
 tggtaacaagc acgtggcgag tccccgctac cacacggtagg gcccgcggc tggcctgctc 60
 atg 63

<210> 116
 <211> 60
 <212> DNA
 <213> Human

<400> 116
 tggtaacaagc acgtggcgag tccccgctac cacacggtagg gcccgcggc tggcctgctc 60

<210> 117
 <211> 57
 <212> DNA
 <213> Human

<400> 117
 tggtaacaagc acgtggcgag tccccgctac cacacggtagg gcccgcggc tggcctg 57

<210> 118
 <211> 54
 <212> DNA
 <213> Human

<400> 118
 tggtaacaagc acgtggcgag tccccgctac cacacggtagg gcccgcggc tggc 54

<210> 119
 <211> 51
 <212> DNA
 <213> Human

<400> 119
 tggtaacaagc acgtggcgag tccccgctac cacacggtagg gcccgcggc t 51

<210> 120
 <211> 48
 <212> DNA
 <213> Human

<400> 120
 tggtaacaagc acgtggcgag tccccgctac cacacggtagg gcccgc 48

<210> 121
 <211> 66
 <212> DNA
 <213> Human

<400> 121
 tacaaggcacg tggcgagtcc ccgttaccac acgggtggcc ggcgcgtgg cctgtatgt 60
 gggctg 66

<210> 122
 <211> 60
 <212> DNA
 <213> Human

<400> 122
 cacgtggcga gtccccccta ccacacggtg ggccgcggc ctggcctgct catggggctg 60

<210> 123
<211> 45
<212> DNA
<213> Human

<400> 123
cgctaccaca cgggtggccg cgcgcgtggc ctgctcatgg ggctg 45

<210> 124
<211> 27
<212> DNA
<213> Human

<400> 124
cgcggcgctg gcctgctcat ggggctg 27

<210> 125
<211> 51
<212> DNA
<213> Porcine

<400> 125
tggtaacaagg acacggcgag tccccgtac cacacggtagg gccgcgcgc g 51

<210> 126
<211> 329
<212> PRT
<213> Rat

<400> 126
Met His Asn Leu Ser Leu Phe Glu Pro Gly Arg Gly Asn Val Ser Cys
5 10 15
Gly Gly Pro Phe Leu Gly Cys Pro Asn Glu Ser Asn Pro Ala Pro Leu
20 25 30
Pro Leu Pro Gln Pro Leu Ala Val Ala Val Pro Val Val Tyr Gly Val
35 40 45
Ile Cys Ala Val Gly Leu Ala Gly Asn Ser Ala Val Leu Tyr Val Leu
50 55 60
Leu Arg Thr Pro Arg Met Lys Thr Val Thr Asn Val Phe Ile Leu Asn
65 70 75 80
Leu Ala Ile Ala Asp Glu Leu Phe Thr Leu Val Leu Pro Ile Asn Ile
85 90 95
Ala Asp Phe Leu Arg Arg Trp Pro Phe Gly Glu Val Met Cys Lys
100 105 110
Leu Ile Val Ala Val Asp Gln Tyr Asn Thr Phe Ser Ser Leu Tyr Phe
115 120 125
Leu Ala Val Met Ser Ala Asp Arg Tyr Leu Val Val Leu Ala Thr Ala
130 135 140
Glu Ser Arg Arg Val Ser Gly Arg Thr Tyr Gly Ala Ala Arg Ala Val
145 150 155 160
Ser Leu Ala Val Trp Ala Leu Val Thr Leu Val Val Leu Pro Phe Ala
165 170 175
Val Phe Ala Arg Leu Asp Glu Glu Gln Gly Arg Arg Gln Cys Val Leu
180 185 190
Val Phe Pro Gln Pro Glu Ala Phe Trp Trp Arg Ala Ser Arg Leu Tyr
195 200 205
Thr Leu Val Leu Gly Phe Ala Ile Pro Val Ser Thr Ile Cys Ala Leu
210 215 220
Tyr Ile Thr Leu Leu Cys Arg Leu Arg Ala Ile Gln Leu Asp Ser His
225 230 235 240
Ala Lys Ala Leu Asp Arg Ala Lys Lys Arg Val Thr Leu Leu Val Val
245 250 255 260
Ala Ile Leu Ala Val Cys Leu Leu Cys Trp Thr Pro Tyr His Leu Ser
265 270
Thr Ile Val Ala Leu Thr Thr Asp Leu Pro Gln Thr Pro Leu Val Ile
275 280 285
Gly Ile Ser Tyr Phe Ile Thr Ser Leu Ser Tyr Ala Asn Ser Cys Leu
290 295 300
Asn Pro Phe Leu Tyr Ala Phe Leu Asp Asp Ser Phe Arg Arg Ser Leu
305 310 315 320
Arg Gln Leu Val Ser Cys Arg Thr Ala
325

<210> 127
<211> 987

<212> DNA
<213> Rat

<400> 127
atgcacaact tgcgtctt cgagcctggc agggcaatg tgcgttcgg cggccattt 60
ttggctgtc ctaacgagtc gaacccagcg ctctgcac tggcgagcc tctggcgta 120
gcagtgcctg tggctacgg ggtgatctgc gcggteggac tggcgaa ctccgcgtg 180
ctgtacgtac tgctgcac gccgcgcata aagacttta ccaacgtgtt cattctcaac 240
ctggctatcg cggacgagct cttcacccctc gtgcgtccca tcaacatcgc ggacttctg 300
ctgaggcgct ggccttcgg ggaagtcatg tgcaactca tcggtggctgt cgaccgtac 360
aacacttttct ctagcctcta cttcgtccca gtcatagcg cagaccgcta cctgggttgtc 420
ctggccacag ccggatcgcc cgggttcgg gggcactt atgtgcggc gccggcggtc 480
agtctggcg 128
<210> 128
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer
<400> 128
actgatatgc acaacttgc gctcttcg 28

<210> 129
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer
<400> 129
actagttcag gctgtcgcc atgacacc 28

<210> 130
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer
<400> 130
gttggggtg gcgattctg 19

<210> 131
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer
<400> 131
tggtagcgc cactatggt 19

<210> 132
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer
<400> 132
gtccgcgtt ttgatggca gcac 24

<210> 133
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 133
gaagagctca tcggcgatag ccag 24

<210> 134
<211> 440
<212> DNA
<213> Mouse

<400> 134
taagcagtgg taacaacgca gagtacgcgg gggcgataa gcagtggtaa caacgcagag 60
tcacgcgggg agtgcctgg tgcatgtccc tggaaacgtg ggccgcataaa cctcgagttt 120
cgccccgtc ctgatggaa tcctgggtt cgccgtctt ccagccctct ccaagatgca 180
taacttaacg ctttcgagt ctggaggaga caacgtgtct tgcggcggtt catcttggg 240
ctgtcccaac gggtccagcc tggctccctt gccgtgcgg cagccactgg cgtagcagt 300
gcctgtcgtc tacgggtaa ttgcgcgtt gggactggct ggcaactctg cggtgctgt 360
cgtaactgtcg cgcacgcgc gcatgaagac tgcaccaac gtgtcatcc tcaaccgtgc 420
tatgcgcgtt gagctcttca 440

<210> 135
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 135
tttcgcgggg ctgctgatgtt gaat 24

<210> 136
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 136
agtgcgtgcct gcgggtggaaa gagg 24

<210> 137
<211> 1083
<212> DNA
<213> Mouse

<400> 137
tttcgcgggg ctgctgatgtt gaatccgtt ggtcgccgtc tctccagccccc tctccaagat 60
gcataactt acgctttcg agtctggagg ggacaacgtg tcttgcggcg gctcatcttt 120
ggctgtccc aacgggtcca gcctggctcc tctggccgtt ccgcagccac tggcggttagc 180
agtgcctgtc gtctacgggg taatttgcg cgtggactg gctggcaact ctggcggtct 240
gtacgtactg ctgcgcacgc cgcgcataa gactgtcaccc aacgtgttca tcccaacct 300
ggctatcgcc gatgagctct tcaacccgtt gctgccttc aacatcgccg acttctgtt 360
gaggcgctgg cccttcgggg aggtcatgtt caagcttcat gtagccgtcg accagtacaa 420
cacttcttctt agccctactt tcctcgccgtt catgaggcgcc gaccgatacc tggtggttct 480
ggcacagca gagtcgcgcgg ggggtgtccgg ggcgcacttac ggtgcagcgc gtgcgtgtcag 540
tctggcggtt tggggcgtt tgacgtgtt gctgcgtccctt tttcggttat tgcgtcggtt 600
ggacgaggag cagggtcgcc gccagtgctt gctggccctt ccgcagcccg aggcccttctg 660
gtggcggtcc agccgtctt acacacttgtt attgggtttt gccatccccgg tgaccaccaat 720
ctgtgtctt tataccactt tgctctggcg actgcgtgtt atccagctttagtgcacgc 780
caaggccctt gatcggttca agaagcggtt gacccttggt gttggcgccga ttctgggtgt 840
gtgcgtctt tgcgtggacgc cttatcacctt ggttaccata gttggccctca ccaccgaccc 900
cccgcaaacg ccgtcggttca tggcatctt ttacttcatc accaagcttga gctatgtt 960
cagctgcctt aacccttttcc tctatgcctt cctggacac agtgcgttca gaaggccctt 1020
gcaattgggtt tcatgcgtt cagcctgtat ccctttccac ctctttccac cgccaggcagc 1080
act 1083

<210> 138

<211> 329
<212> PRT
<213> Mouse

<400> 138
Met His Asn Leu Thr Leu Phe Glu Ser Gly Gly Asp Asn Val Ser Cys
5 10 15
Gly Gly Ser Ser Leu Gly Cys Pro Asn Gly Ser Ser Leu Ala Pro Leu
20 25 30
Pro Leu Pro Gln Pro Leu Ala Val Ala Val Pro Val Val Tyr Gly Val
35 40 45
Ile Cys Ala Val Gly Leu Ala Gly Asn Ser Ala Val Leu Tyr Val Leu
50 55 60
Leu Arg Thr Pro Arg Met Lys Thr Val Thr Asn Val Phe Ile Leu Asn
65 70 75 80
Leu Ala Ile Ala Asp Glu Leu Phe Thr Leu Val Leu Pro Ile Asn Ile
85 90 95
Ala Asp Phe Leu Leu Arg Arg Trp Pro Phe Gly Glu Val Met Cys Lys
100 105 110
Leu Ile Val Ala Val Asp Gln Tyr Asn Thr Phe Ser Ser Leu Tyr Phe
115 120 125
Leu Ala Val Met Ser Ala Asp Arg Tyr Leu Val Val Leu Ala Thr Ala
130 135 140
Glu Ser Arg Arg Val Ser Gly Arg Thr Tyr Gly Ala Ala Arg Ala Val
145 150 155 160
Ser Leu Ala Val Trp Ala Leu Val Thr Leu Val Val Leu Pro Phe Ala
165 170 175
Val Phe Ala Arg Leu Asp Glu Glu Gln Gly Arg Arg Gln Cys Val Leu
180 185 190
Val Phe Pro Gln Pro Glu Ala Phe Trp Trp Arg Ala Ser Arg Leu Tyr
195 200 205
Thr Leu Val Leu Gly Phe Ala Ile Pro Val Thr Thr Ile Cys Ala Leu
210 215 220
Tyr Thr Thr Leu Leu Cys Arg Leu Arg Ala Ile Gln Leu Asp Ser His
225 230 235 240
Ala Lys Ala Leu Asp Arg Ala Lys Lys Arg Val Thr Leu Leu Val Ala
245 250 255
Ala Ile Leu Ala Val Cys Leu Leu Cys Trp Thr Pro Tyr His Leu Ser
260 265 270
Thr Ile Val Ala Leu Thr Thr Asp Leu Pro Gln Thr Pro Leu Val Ile
275 280 285
Gly Ile Ser Tyr Phe Ile Thr Ser Leu Ser Tyr Ala Asn Ser Cys Leu
290 295 300
Asn Pro Phe Leu Tyr Ala Phe Leu Asp Asp Ser Phe Arg Arg Ser Leu
305 310 315 320
Arg Gln Leu Val Ser Cys Arg Ser Ala
325

<210> 139
<211> 987
<212> DNA
<213> Mouse

<400> 139
atgcataact taacgcttt cgagtcttga ggggacaacg tgcgttgccg cggctcatct 60
ttgggctgtc ccaacgggtc cagccctggct cctctggccg tgccgcagcc actggcggt 120
gcagtgcctg tcgtctacgg ggtaatttgc gccgtggac tggctggcaa ctctgcggtg 180
ctgtacgtac tgctgcgcac gcccgcgtc aagactgtca ccaacgtgtt catcctcaac 240
ctggctatcg ccgatggctt cttcaccctc gtgcgtccca tcaacatcgc ggacttccctg 300
ctgaggcgct ggcccttcgg ggagggtatgc tgcaagctca tttagccgt cgaccgtac 360
aacactttctt ctggccatca cttccctggcc gtcatgagcg cccggccata cctgggtgggt 420
ctggccacag cagagtgcgc cccgggtgtcc gggcgactt acggtgccgc gctgtgtgc 480
agtctggcggt ggtgacgtcg gtcgtgtgc ccitggcggt attcgctcg 540
ctggacgagg agcagggtcg ggcggccatgc gtgcgttgtt tccggcagcc cgaggccctc 600
tggctggcggtt ccacacta gttttgggtt ttggccatccc ggtgaccacc 660
atctgtgtc tctataccac tctgctctgc cgactcggtt ctatccagct agatagccac 720
gcggccatca tggatgtgc caagaaggccg gtgacccgtt tggggccggc gattctggct 780
gtgtgcctcc tctgctggac gccttaatcac ctgagttacca tagtggccctt caccaccgac 840
ctccggccaaa cgccgcgtgtt catcgccatc tcttacttca tcaccaggctt gagctatgtt 900
aacagctgcc tcaaccctt cctctatgcc ttccctggacg acagcttccg cagaaggccctc 960
cgccaatttgg tgtcatgcgc ttccggcc 987

<210> 140
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe

<400> 140
tcctctgctg gacaccgtac caccctga 27

<210> 141
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 141
atcgatatagg acaacgcctc gttctcgag cc 32

<210> 142
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 142
actagtgtca ggctgccgcg cgccaaggta tc 32

<210> 143
<211> 1000
<212> DNA
<213> Human

<400> 143
atcgatatagg acaacgcctc gttctcgag ccctggcccg ccaacgcattt gggcccgac 60
ccggcgctga gctgctccaa cgctgcact ctggcgccgc tgccggcgcc gctggcggtg 120
gctgtaccag ttgtctacgc ggtgatctgc gccgtggtc tggcgccaa ctccgcccgtg 180
ctgtacgtgt tgctgcggc gccccgcattt aagaccgttc ccaacctgtt catccctcaac 240
ctggccatcatc cgcacgcgtt ctacacgtt gtcgtggccca tcaacatcgc cgacttccgt 300
ctggcgcatg ggcccttcgg ggagctcatg tcaaggctca tcgtggctat cgacccgtac 360
aacacccatc ccaggctcta cttcctcacc gtcatgagcg ccgaccgcata cctgggtgt 420
ttggccactg cggagtgcgc ccgggtggcc ggccgcaccc acagccgcgc gcgcgcgtg 480
agccgtggcc tggtggggat cgtcacatc gtcgtgtgc ccttcgcgtl cticgcggcc 540
ctagacgacg cgcaggccgc ggcgcgtgc tgcttagtct ttccgcagcc cgaggcccttc 600
tggggccgcg cgagccgcctt ctacacgcgtt gtcgtggct tcgcattccc cgtgtccacc 660
atctgtgtcc tctataccac cttcgtgtgc cggctgcattt ccatgcggctt ggacagccac 720
gccaaggccc tggagccgcg caagaagccgg gtgacccccc tggtggtggc aatccgtggc 780
gtgtgcctcc tctgctggac gcccattaccat ctgagccacc tggtggtggctt caccaccgac 840
ctccgcaga cggccgttgtt catcgctatc tcctacttca tcaccagccctt gagctacgccc 900
aacacgtgcc tcaacccctt cctctacgcctt ttcctggacg ccagcttccg caggaaccc 960
cgccagctga taacttgcgc cgccgcgcgc tgacactagt 1000

<210> 144
<211> 328
<212> PRT
<213> Human

<400> 144
Met Asp Asn Ala Ser Phe Ser Glu Pro Trp Pro Ala Asn Ala Ser Gly
1 5 10 15
Pro Asp Pro Ala Leu Ser Cys Ser Asn Ala Ser Thr Leu Ala Pro Leu
20 25 30
Pro Ala Pro Leu Ala Val Ala Val Pro Val Val Tyr Ala Val Ile Cys
35 40 45
Ala Val Gly Leu Ala Gly Asn Ser Ala Val Leu Tyr Val Leu Leu Arg
50 55 60
Ala Pro Arg Met Lys Thr Val Thr Asn Leu Phe Ile Leu Asn Leu Ala
65 70 75 80
Ile Ala Asp Glu Leu Phe Thr Leu Val Leu Pro Ile Asn Ile Ala Asp
85 90 95
Phe Leu Leu Arg Gln Trp Pro Phe Gly Glu Leu Met Cys Lys Leu Ile
100 105 110
Val Ala Ile Asp Gln Tyr Asn Thr Phe Ser Ser Leu Tyr Phe Leu Thr
115 120 125
Val Met Ser Ala Asp Arg Tyr Leu Val Val Leu Ala Thr Ala Glu Ser

130	135	140
Arg Arg Val Ala Gly Arg Thr Tyr Ser Ala Ala	Arg Ala Val Ser Leu	
145	150	155
Ala Val Trp Gly Ile Val Thr Leu Val Val	Leu Pro Phe Ala Val Phe	
165	170	175
Ala Arg Leu Asp Asp Glu Gln Gly Arg Arg Gln Cys Val Leu Val Phe		
180	185	190
Pro Gln Pro Glu Ala Phe Trp Trp Arg Ala Ser Arg Leu Tyr Thr Leu		
195	200	205
Val Leu Gly Phe Ala Ile Pro Val Ser Thr Ile Cys Val Leu Tyr Thr		
210	215	220
Thr Leu Leu Cys Arg Leu His Ala Met Arg Leu Asp Ser His Ala Lys		
225	230	235
Ala Leu Glu Arg Ala Lys Lys Arg Val Thr Phe Leu Val Val Ala Ile		
245	250	255
Leu Ala Val Cys Leu Leu Cys Trp Thr Pro Tyr His Leu Ser Thr Val		
260	265	270
Val Ala Leu Thr Thr Asp Leu Pro Gln Thr Pro Leu Val Ile Ala Ile		
275	280	285
Ser Tyr Phe Ile Thr Ser Leu Ser Tyr Ala Asn Ser Cys Leu Asn Pro		
290	295	300
Phe Leu Tyr Ala Phe Leu Asp Ala Ser Phe Arg Arg Asn Leu Arg Gln		
305	310	315
Leu Ile Thr Cys Arg Ala Ala Ala		
		320
		325

<210> 145

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 145

atcgatatgg acaacgcctc gttctcgag cc 32

<210> 146

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 146

tagaggctgg agaagggttt g 21

<210> 147

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 147

catgaagacc gtcaccaacc t 21

<210> 148

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 148

ccagcgtcaa gagctcgta 19

<210> 149

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Designed peptide

<400> 149
Trp Phe Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15
Ala Gly Leu Leu
20

<210> 150

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223>

<400> 150

tggttcaagc acgtggcgag tccccgctac cacacggtgg gccgcgccgc tggcctgctc 60